

sense (astereognosis or stereoagnosis, as he prefers to call this condition) and states conclusions, of which the chief are the following:— (1) The ability to recognise objects by handling them depends upon the integrity of the afferent nerves, the cortical sensory area and the cortical perceptive area (*vide* below)—disease of any of these will make it impossible for the patient to recognise objects by handling them. (2) Which form of sensation is most necessary for the recognition of any given object depends upon the qualities of the object. Tactile anesthesia, if sensibility to stronger pressure is preserved, causes little or no difficulty. The space-sense (*i.e.*, the faculty of distinguishing simultaneous impressions), the localising sense and the sense of position are probably the most important. (3) There is a distinct area of the cortex in which sensations produced by handling objects are grouped together to form tactile memory images: this, the tactile perceptive area, is in the parietal lobe and it is not the same thing as the sensory area, though it may be located within the boundaries of the latter. (4) Tactile amnesia includes the cases in which, on account of disease in the tactile perceptive area, the tactile memory images are destroyed. It is not unfrequently associated with mind blindness and, indeed, it is probable that always in recognising objects by handling them we recall from memory a more or less faint recollection of the visual appearance of the object. Auditory memories are less frequently recalled, because less frequently needed to make a complete percept, and those of smell and taste quite rarely. Burr emphasises the fact that we must clearly distinguish between the two forms of astereognosis, peripheral and central. The former is due to failure of one or more of the primary sensations (from disease of the sensory nerves, or of the sensory tracts in the central nervous system); the latter is caused by disease of the cerebral cortex, which interferes either with the proper correlation of the various sensations received from handling an object, or with what Burr calls the "tactile mental images," stored up in a particular part of the cerebral cortex (*vide* above). More stress he thinks, ought to be laid on the tracts which connect the sensory cortical area related to handling objects with other sensory centers, especially the visual, whose associated activity seems necessary for the recognition of objects by handling.

JELLIFFE.

MYOKYMIA, OR PERSISTENT MUSCULAR QUIVERING. R. T. Williamson (Brit. Med. Jour., Dec. 15, p. 1,705).

The symptoms in the following case correspond to those of the very rare affection to which Professor Schultze has given the name of "myokymie," and Dr. Kny (who had previously reported two similar cases) that of "myoclonus fibrillaris multiplex." The writer has only been able to find records of eight cases in medical literature.

A clerk, aged twenty-one, was admitted to hospital suffering from peculiar persistent quivering of the muscles of the limbs, trunk, and face. The left leg had been suddenly paralysed in infancy (probably owing to acute anterior poliomyelitis) and had remained useless. At the age of sixteen it had been seriously injured, through an accident, and amputation had been necessary at the upper part of the left thigh. Two years before he came under observation, he first noticed quivering of the muscles of the right leg. The onset was gradual, and the quivering spread in the course of time to the muscles of the

arms, trunk, face and tongue. There had been no cessation or diminution of the symptoms since their onset. After the amputation of the left leg he had been able to get about with the aid of a crutch, but recently he had found great difficulty in doing so, owing to the right leg frequently "giving way" from the muscular quivering.

The patient was fairly well nourished. There was a persistent rapid quivering of the muscles of the right leg, arms, trunk, face, and tongue. Sometimes one small bundle of fibers contracted rapidly, giving the appearance of fibrillary contraction; sometimes several bundles contracted; sometimes the whole muscle contracted rapidly. The symptom was best seen in the leg, and the quivering affected chiefly the thigh and calf muscles. At one moment a bundle or several bundles of muscle fibers would contract rapidly; directly afterwards a wave of contraction would pass over the whole muscle. This muscular quivering produced a very slight shaking or trembling of the whole leg, even when the patient was in bed. When the quivering was very violent, rapid and repeated slight movements of the foot occurred at the ankle, owing to the quivering of the calf muscles. The arms were affected in a similar manner, but not quite so markedly as the leg, the muscles of the shoulder, upper arm, and forearm being most affected, those of the hand very slightly. In the arms the quivering or contraction did not affect the whole of a muscle so frequently as in the leg. The rapid and repeated quivering of the muscles of the arm and leg continued more or less all day; the muscles were affected in a most irregular manner, and the frequency of the quivering varied considerably.

The muscles of the chest and abdomen presented occasional fibrillary contractions; the muscles of the face, tongue and neck, and the masseters, frequent fibrillary contractions. The eyes were not affected. The contractions continued when the patient was at rest in bed, as well as when he was about. When the arms were held out in front of the chest, the muscular quivering produced a slight tremulous movement of the whole limb resembling that so frequently seen in Graves' disease; but there was not the flexion and extension movements of the fingers or wrist which are seen in paralysis agitans. The muscular quivering and slight tremor of the limbs were very little affected by voluntary movement; they were not diminished thereby; if any change occurred at all, they were slightly increased. The muscular quivering was increased by excitement, and when the patient was undergoing examination. The patient was able to write fairly well, and though the writing was slightly jerky, it was much better than in the various other forms of tremor, with the exception of paralysis agitans. He was also able to draw a fairly straight line on paper.

The patient could perform all the movements of the arms and legs, and there was no localized wasting or paresis of muscles. There was no rigidity of the limbs. The knee-jerk was a little increased. There was no ankle clonus. On attempting to obtain ankle clonus occasionally a few jerks were obtained. The plantar reflex was normal (flexor type). There was no loss of sensibility to touch, pain, or temperature. The sensory cranial nerves were unaffected. There were no mental symptoms. The patient was not emotional or nervous. There was no affection of speech. He often complained of palpitation of the heart, and the pulse was often quick—84 to 108. He complained of frequent sweating.

During the four weeks the patient was in the hospital there

was no definite change; some days the muscular quivering was a little less, but the diminution was never permanent. The quivering continued more or less all day, just as it had done for two years.

In the 8 cases recorded, the ages were from 21 to 27. All the patients were males. Five were peasants or country laborers. One patient was a painter, another a plumber; both suffered also from symptoms of lead poisoning. On patient suffered from chronic double sciatica. In all the 8 cases the legs were most affected. In 2 cases the legs only were affected; in 1 the legs and muscles of the back; in 2 the arms and legs; in 1 the legs and arms but not the hands; in 1 almost all the muscles of the body; and in 1 almost all the muscles except those of the face and neck. In the present case the muscles of the limbs, trunk, neck, and face, were affected. In four cases recovery occurred in the course of a few months; in 1 case there was distinct improvement. The treatment, in cases in which recovery occurred, was, respectively, by warm baths and galvanism, by bipolar faradic baths, and by rest in bed and warm baths. One patient improved distinctly under the galvanic current and warm baths. The etiology and pathology are unknown. JELLIFFE.

ZUR TRIGEMINUSERKRANKUNG ALS INITIAL SYMPTOM DER TABES (Trigeminal Disease as Initial Symptom of Tabes). V. Fragstein (Deutsche med. Wochenschrift, No. 12, March 12, 1901, p. 185).

A man, who thirteen years previously had acquired syphilis, began to have tic douloureux implicating all branches of the right trigeminal nerve. The lightning-like pains in the face were severe and occurred in paroxysms, and gradually became more frequent. After these pains had existed about a year and a half, almost complete paralysis of the right sensory fifth nerve occurred, although taste was preserved; and at about the same time lightning-like pains were felt in paroxysms in the lower limbs, and were associated with girdle-sensation and vesical disturbance. The patellar and plantar reflexes were absent and Romberg's sign was pronounced.

SPILLER.

A CASE OF DESCENDING LANDRY'S PARALYSIS IN A CHILD. Leonard A. Rowden (British Medical Journal, May 4).

Rowden reports this case as follows: boy aged ten, while at play fell lightly about ten feet into an excavation. Was apparently none the worse for the accident until the following day, when he complained of not feeling well and held his head as though he had a slight stiff neck; vomited once after eating lightly. The next day he complained of slight headache and pain in the neck. The day after his temperature was 103, and he was unable to turn his head sideways or to raise either arm at the shoulder joint. No other abnormality was detected. On the day following, however, had complete paralysis of both upper limbs and trunk, together with paralysis of the intercostal muscles, and partial paralysis of the lower limbs. Sensation was not disturbed. There was no headache, no pain, no loss of bladder or rectal control, no rigidity or twitching of muscles, no strabismus. Swallowing was not difficult, and the speech was clear, mentality normal. Towards evening the paralysis of the lower limbs was more advanced, the muscles of deglutition somewhat involved and sensation slightly affected as shown by